Tips And Tricks
For Acute Stroke Interventions

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Disclosures

<table>
<thead>
<tr>
<th>Physician name</th>
<th>Company</th>
<th>Relationship</th>
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<tr>
<td>Horst Sievert</td>
<td>4tech Cardio, Abbott, Ablative Solutions, Ancora Heart, Bavaria Medizin Technologie GmbH, Bioventrix, Boston Scientific, Carag, Cardiac Dimensions, Celonova, Comed B.V., Contagio, Cryo, Edwards, Endologix, Homoeos, Lietech, Maquet Getinge Group, Medtronic, Mitralign, Nuamsa Medtech, Mokita, Occlutech, pfm Medical, Reece, Renal Guard, Rox Medical, Terumo, Vascular Dynamics, Venus, VivaSure Medical</td>
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5 cases in 5 min

Routine cases are very fast procedures!

Case 1: 16 yrs old girl, hemiplegic and aphasic

Left middle cerebral artery occluded
After deployment of the Solitaire

33 min after the stroke call

"Ich kann wieder sprechen!!!!"

*I can speak again!!!!*

Case 2:
Tandem lesion - which one to treat first?

ICA stenosis

Middle cerebral artery occlusion

• We put the stent first
• Good result after Wallstent

Solitaire retriever in the middle cerebral artery
• Restoration of flow
• What happened next?

The worst of the worst!

• Solitaire retrieved from the MCA
• Solitaire got stuck in the stent struts
• Multiple attempts to retrieve it failed
• Finally, the ICA was occluded
• What to do now?
Nothing!
Why?

- The middle cerebral artery was open!
- Patient doing fine!

In most stroke cases, the intra-cranial vessels are important, not the ICA!

Case 3: Embolic stroke during carotid stenting

MCA sidebranch opened using micro-catheters and wires

3 branches re-opened

... awake but hemiplegic

Another branch!
4 branches

- Strokes occurring during interventions are very much different from other strokes
  - Usually smaller side branches
  - Not clot but debris
  - Mechanical recanalization with microcatheters and wires often works

Case 4
- Solitaire in a small MCA side branch
- It always re-occluded after multiple attempts with different types and sizes of stent retrievers

- 1.2/20mm PTCA balloon

Case 5
- 95 y/o, f hemiplegic
- Left middle cerebral artery (MCA) occluded
- Re-occlusion after multiple attempts using stent retrievers

Aspiration!
- ACE aspiration catheter could not be advanced into the MCA
Solitaire introduced through the aspiration catheter

Aspiration catheter advanced over the Solitaire
Solitaire pulled back into the aspiration catheter under continuous aspiration

Almost complete recovery, discharged to her home on day 17

Sometimes only the combination of stent retrievers and aspiration works!

Thank you for your time!